MEMORANDUM

Agenda Item No. 7(P)(2)(B)

TO: Honorable Chairperson Barbara Carey-Shuler, Ed.D. and Members, Board of County Commissioners

DATE: May 11, 2004

FROM: Robert A. Ginsburg
County Attorney

SUBJECT: Resolution directing County Manager to take steps to expand the Safe Lite Monitoring Pilot Program

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The accompanying resolution was prepared and placed on the agenda at the request of Commissioner Jose "Pepe" Diaz and Commissioner Rebeca Sosa.

Robert A. Ginsburg
County Attorney

RAG/bw

MEMORANDUM

(Revised)

TO: Hon. Chairperson Barbara Carey-Shuler, Ed.D. and Members, Board of County Commissioners

DATE: May 11, 2004

FROM: Robert A. Ginsburg
County Attorney

SUBJECT: Agenda Item No. 7(P)(2)(B)

Please note any items checked.

_____ **"4-Day Rule" ("3-Day Rule" for committees) applicable if raised**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

_____ **Bid waiver requiring County Manager's written recommendation**

_____ **Ordinance creating a new board requires detailed County Manager's report for public hearing**

_____ **Housekeeping item (no policy decision required)**

_____ **No committee review**

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 7(P)(2)(B)
5-11-04

RESOLUTION NO. _____

RESOLUTION DIRECTING COUNTY MANAGER TO TAKE APPROPRIATE STEPS TO IMPLEMENT THE SAFE LITE MONITORING SYSTEM COUNTYWIDE, EXPAND THE SAFE LITE MONITORING PILOT PROGRAM IN FLOOD-PRONE AREAS AND PERFORM FISCAL IMPACT STUDY COMPARING COUNTYWIDE INSTALLATION OF SAFE LITE MONITORING SYSTEM AT ONE TIME WITH PHASED INSTALLATION

WHEREAS, on June 18, 2002, this Board approved Resolution No. 687-02 (copy attached) authorizing the County Manager to negotiate a contract with Horsepower Electric, Inc. ("Horsepower") for a Pilot Program to study the "Safe Lite Monitoring System" ("System") developed by Horsepower; and

WHEREAS, the Pilot Program included the test of ten circuits consisting of 385 street lights and was completed in February, 2004; and

WHEREAS, on February 24, 2004, the County's independent consultant submitted a report on the operation of the System for street lighting installations; and

WHEREAS, the consultant concluded that the System dramatically increases the level of safety for street lighting installation and may eliminate electrocutions due to metal poles becoming accidentally energized; and

WHEREAS, on April 20, 2004, the Governmental Operations and Environment Committee accepted the consultant's report and approved a motion directing the County Manager to implement the System countywide, expand the pilot program in the most flood-prone areas of the county and to perform a fiscal impact study comparing countywide installation of System at one time with phased installation.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA that the County Manager is hereby directed to take appropriate steps to implement the Safe Lite Monitoring System countywide, expand the Safe Lite Monitoring Pilot Program in the county's most flood-prone areas pending implementation of the System and to perform a fiscal impact study comparing countywide installation of the System at one time with phased installation.

The foregoing resolution was sponsored by Commissioner Jose "Pepe" Diaz and Commissioner Rebeca Sosa offered by Commissioner , who moved its adoption. The motion was seconded by Commissioner and upon being put to a vote, the vote was as follows:

Dr. Barbara Carey-Shuler, Chairperson
Katy Sorenson, Vice-Chairperson

Bruno A. Barreiro	Jose "Pepe" Diaz
Betty T. Ferguson	Sally A. Heyman
Joe A. Martinez	Jimmy L. Morales
Dennis C. Moss	Dorrin D. Rolle
Natacha Seijas	Rebeca Sosa
Sen. Javier D. Souto	

The Chairperson thereupon declared the resolution duly passed and adopted this 11th day of May, 2004. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By:_____
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Henry N. Gillman

MEMORANDUM

Agenda Item No. 6(O)(1)(C)

TO: Honorable Chairperson and Members
Board of County Commissioners

DATE: June 18, 2002

SUBJECT: Resolution Authorizing the County Manager to Negotiate a Contract for the Implementation of a "Safe-Lite" Monitoring System Pilot Program

FROM: Steve Shiver
County Manager

R#687-02

RECOMMENDATION

It is recommended that the Board approve the attached resolution authorizing the County Manager to negotiate a contract with Horsepower Electric, Inc., for the implementation of a "Safe-Lite" Monitoring System Pilot Program. Upon completion of negotiations and after review and approval by the County Attorney, the appropriate contract documents will be submitted to the Board for final approval.

BACKGROUND

The County's Roadway Lighting System, consisting of approximately 19,000 poles, is maintained by Horsepower Electric, Inc., through an existing maintenance contract. Following the tragic electrocutions in December of 2000, the Mayor and the Board of County Commissioners requested that immediate action be taken to enhance the safe operation of the roadway lighting system.

As of June 5, 2002, a total of 1,570 streetlights have been retrofitted in the most significant flood prone areas of the County. In addition, work orders have been issued to upgrade 483 additional lights. Furthermore, bids for three other contracts, encompassing the retrofit of approximately 5,400 lights, have been received. The remaining 11,500 lights, requiring a less extensive enhancement effort, will be addressed as funding is provided.

In August 2001, the County's electrical consultant, Martin-Vilato Associates, Inc., and Public Works Department staff witnessed a demonstration of a monitoring and emergency automatic shut-off system developed by the aforementioned contractor. The device, which holds a U.S. patent, has the ability to monitor the system, detecting an entire array of malfunctions, some visible such as light outages,

others more concealed and possibly more dangerous to the general public. Depending on the severity of the detected malfunction, the device will instantaneously shut-off the circuit on site and will then signal the control center to initiate corrective action in the field. In other less severe instances, where public safety is not in jeopardy, the center will be alerted of the malfunction and appropriate action initiated. The device performance during the demonstration was consistent with the capabilities proffered in the contractor's letter of August 20, 2001 and verified by the County's consultant review memorandum of October 22, 2001.

The contractor has submitted a formal proposal for the installation of the "Safe-Lite" Monitoring System on the County's roadway lighting system. This proposal consists of the installation of monitoring devices on 10 roadway lighting circuits consisting of approximately 400 lights. Public Works Department staff and its consultant recommend the implementation of an 18-month Pilot Program for the County to conduct further independent tests and evaluate the extent of the benefits associated with the device.

The cost of the Pilot Program including procurement of equipment, installation and monitoring for 18 months is estimated at a price not exceeding $200,000 for the proposed trial period. Attached, please find copies of the contractor's proposal and the Department's consultant review, as well as the engineering estimate of probable cost.

MEMORANDUM

TO: Honorable Chairperson and Members
Board of County Commissioners

DATE: June 18, 2002

FROM: Robert A. Ginsburg
County Attorney

SUBJECT: Agenda Item No. 6(O)(1)(C)

Please note any items checked.

_____ **"4-Day Rule" (Applicable if raised)**

_____ **6 weeks required between first reading and public hearing**

_____ **4 weeks notification to municipal officials required prior to public hearing**

_____ **Decreases revenues or increases expenditures without balancing budget**

_____ **Budget required**

_____ **Statement of fiscal impact required**

_____ **Statement of private business sector impact required**

_____ **Bid waiver requiring County Manager's written recommendation**

_____ **Ordinance creating a new board requires detailed County Manager's report for public hearing**

_____ **"Sunset" provision required**

_____ **Legislative findings necessary**

Approved _____ Mayor

Veto _____

Override _____

Agenda Item No. 6(O)(1)(C)
6-18-02

RESOLUTION NO. 687-02

RESOLUTION AUTHORIZING THE COUNTY MANAGER TO NEGOTIATE A CONTRACT FOR THE IMPLEMENTATION OF A "SAFE-LITE" MONITORING SYSTEM PILOT PROGRAM

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board finds it in the best interest of Miami-Dade County to authorize the County Manager or his designee to finalize negotiation of contract documents with Horsepower Electric, Inc., for implementation of a "Safe-Lite" Monitoring System Pilot Program, in accordance with the attached proposal, submitted to the County on January 24, 2002 and summarized in the attached County Manager's memorandum and its attachment, and upon successful negotiation, obtain review and approval by the County Attorney of the appropriate contract documents which will be submitted to the Board for final approval.

The foregoing resolution was offered by Commissioner , who moved its adoption. The motion was seconded by Commissioner and upon being put to a vote, the vote was as follows:

Bruno A. Barreiro	Jose "Pepe" Cancio, Sr.
Dr. Barbara Carey-Shuler	Betty T. Ferguson
Gwen Margolis	Joe A. Martinez
Jimmy L. Morales	Dennis C. Moss
Dorrin D. Rolle	Natacha Seijas
Katy Sorenson	Rebeca Sosa

Sen. Javier Souto

The Chairperson thereupon declared the resolution duly passed and adopted this 18th day of June, 2002. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

Approved by County Attorney as to form and legal sufficiency. _____
Hugo Benitez

By:_____
Deputy Clerk

HORSEPOWER ELECTRIC, INC.

8105 West 20th Avenue, Hialeah, Florida 33014-3231
TEL (305) 819-4060 FAX (305) 819-4222

Aristides Rivera, P.E.
Director
Public Works Department
Miami-Dade County
111 N.W. 1st Street, Suite 1610
Miami, Florida 33128-1970

January 24, 2002

Re: Safe-Lite Monitoring System Proposal - Pilot Program

Dear Mr. Rivera:

Thank you for meeting with Horsepower Electric, Inc., ("Horsepower Electric") and allowing us to introduce and propose the Safe-Lite Monitoring System ("SLMS") for a Pilot Program on Miami-Dade County's ("County") roadway lighting systems. Horsepower Electric's advanced technology developed in the Safe-Lite Monitoring System will provide greater safety and increasing performance to the County roadway lighting systems. This letter is our proposal to install the Safe-Lite Monitoring System as part of an 18 month Pilot Program on 10 roadway lighting service points in the County. Approximately 400 lights will be included in the 10 lighting service points to be monitored.

Introduction

Horsepower Electric has the rights to develop the Safe-Lite Monitoring System and the authority to enter into an agreement with the County for a Pilot Program to monitor its street lighting systems. The Safe-Lite Monitoring System is designed to increase the safety and performance of roadway lighting systems. The system is designed to be installed on street lighting service panels and to provide on-going monitoring and data regarding the performance of the lighting circuits. The Safe-Lite Monitoring System includes a monitoring device, modem, command center, computer and communication channel. It is designed to supplement existing lighting maintenance systems by providing real-time monitoring of current and voltage levels in lighting circuits. The feedback data from the system is then used to diagnose problem locations and initiate safety measures, including the prevention of hazardous conditions.

Experience and Staffing

Horsepower Electric is an electrical contracting company doing business in and around the South Florida area for over 16 years. Our company has built its reputation on

providing quality service and on placing a high priority on safety for its employees, clients and the general public. Horsepower Electric provides similar electrical design, installation and maintenance services to private organizations and public entities, including the County, the State of Florida, and several municipalities.

System Benefits

There are several benefits the County will receive from the Safe-Lite Monitoring System. Perhaps the greatest benefit to the County will be the real-time monitoring of current and voltage levels on the County's roadway lighting systems, to provide constant data to detect potentially hazardous conditions. The system is designed to trigger an automatic safety disconnect when such hazardous conditions exist. The detection of ground faults on live circuits and the automatic shut-down of power supply will prevent electrocutions and death caused by accidental contact with energized wires or equipment, such as poles. Another benefit the system provides is the ability to detect unplanned wire damage or interruption due to acts of nature such as hurricanes, flooding, storm damage and vehicular accidents. By monitoring power consumption, the Safe-Lite Street Lighting Monitoring System provides the value added service of supplementing the existing maintenance systems used by the County. It also compares the data received from voltage and circuit levels with known algorithms.

Scope of Services

Horsepower Electric proposes to provide the technology, equipment, software and services to install the Safe-Lite Monitoring System on 10 County roadway lighting service points. The 10 roadway lighting service points will be identified by the County and must be acceptable to Horsepower Electric. The County and Horsepower Electric will agree upon a schedule for installation of the Safe-Lite Monitoring System on each lighting circuit service panel. However, the installation schedule will not exceed a 6 month period from the initial date of the Pilot Program.

The specific services and benefits to be provided by Horsepower Electric as part of the Pilot Program are more specifically described in Exhibit "A", Safe-Lite Monitoring System, subject to the County providing access to its roadway lighting facilities including each service panel, control panels, etc.

Horsepower Electric will install the Safe-Lite Monitoring System in accordance with the parameters outlined in Exhibit "B". Horsepower Electric acknowledges that the parameters contained in Exhibit "B" are those recommended by the consultant for the County, Martin Vilato Associates, Inc. Horsepower Electric agrees to provide the County and/or its consultant representatives routine data and reports on the performance of the Safe-Lite Monitoring System for each monitoring device and lighting circuit. In addition, Horsepower Electric will coordinate its efforts and services with the County and its consultant representatives to provide routine testing and reporting of the Safe-Lite Monitoring System.

Horsepower Electric proposes that the County and Horsepower Electric mutually agree upon satisfactory performance measures for the Safe-Lite Monitoring System and Pilot Program. These performance measures will be agreed upon prior to the activation of the Safe-Lite Monitoring System on each lighting circuit.

Compensation

Horsepower Electric proposes to provide the technology, equipment, software and services as outlined in the Scope of Services for compensation in the amount of $199,999. This compensation amount will be paid to Horsepower Electric in four installments based on the satisfactory occurrence of the following events:

Payment No.	Amount	Event
First payment	$50,000	Execution and initiation of contract.
Second payment	$50,000	Completion of all equipment installation
Third payment	$50,000	Three months after installation of equipment and operation of system
Fourth payment	$49,999	Twelve months from the installation of equipment completion date and/or satisfactory completion of the Safe-Lite Monitoring System by the County, whichever is shorter.

Upon acceptance of this proposal by the County, Horsepower Electric will negotiate and enter into an agreement with the County to implement the Safe-Lite Monitoring System Pilot Program. The negotiated agreement will outline the rights and responsibilities of the parties. The first six months of the Pilot Program will be reserved for equipment installation. The Safe-Lite Monitoring System operations will occur over a 12 month period.

Commitments

A. Commitments by Horsepower Electric

For the right to participate in the Safe-Lite Monitoring System Pilot Program Horsepower Electric commits to providing the technology, equipment, software and services outlined in the Scope of Services in Exhibit "A". In addition, Horsepower Electric agrees to carry appropriate insurance to perform the contract and services.

B. Commitments by Miami-Dade County

The County agrees to compensate Horsepower Electric in accordance with the terms of this letter. The County also agrees to permit the permanent placement of the Safe-Lite Monitoring System by Horsepower Electric throughout the County upon the satisfactory completion of this Pilot Program. The permanent placement of the Safe-Lite Monitoring System on all County roadways will be pursuant to a separate negotiated agreement between the parties for a minimum term of 10 years.

Conditions

All rights, title, and interest in and to the Safe-Lite Monitoring System, its invention, design, equipment, software, method, specifications and other documentation relating thereto developed by Horsepower Electric and any of its representatives, employees or subcontractors, shall remain the property of Horsepower Electric. The County, neither its employees, agents, or consultants shall have any proprietary interest in the Safe-Lite Monitoring System.

The Safe-Lite Monitoring System has a patent pending application. Horsepower Electric, its representatives, agents, employees and sub-contractors hereby reserves any and all rights in, on and to the Safe-Lite Monitoring System. As used in this letter proposal, the Safe-Lite Monitoring System shall include, but is not limited to, its invention, design, equipment, software, method, specifications and other documentation relating thereto.

Horsepower Electric is pleased to submit this letter proposal for the Safe-Lite Monitoring System Pilot Program to the County. If you need any additional information, please let us know.

Sincerely,

Hector P. Ortiz
President

cc: Pedro G Hernandez, P.E.

EXHIBIT "A"

SAFE-LITE MONITORING SYSTEM

DESCRIPTION

The Safe-Lite Monitoring System is a control system specifically developed to increase the safety and efficiency of roadway light systems by monitoring the voltage and current fluctuations on a circuit and taking corrective action as required. It provides a cost-effective method to minimize risks to life and property.

The system, installed on each service panel, includes a monitoring device and modem, a command center computer, and a communications channel. It monitors all the circuits fed by the control panel, can turn the service power off when a dangerous condition is detected, and stores data relative to the operation of each circuit. At scheduled intervals, the command center computer polls the monitoring devices and downloads the data for permanent storage.

SERVICES AND BENEFITS

ROADWAY LIGHTS SYSTEM SAFETY IMPROVEMENTS

- **Ground Fault Monitoring**

  The Safe-Lite System continually monitors each circuit's currents and immediately detects ground faults on live circuits. Upon detection of a ground fault, the system automatically shuts down the power supply to the circuit and sends a warning to the command center computer. The system blocks the power supply to the circuit and can only be reset manually after the ground fault is repaired.

- **Grounding Continuity**

  The Safe-Lite System monitors the ground continuity in both on and off circuits. If the circuit is on and the device detects an open grounding, the system shuts down the power supply to the circuit. If the open grounding is detected while the circuit is off, the system will block the power supply to the circuit. In both instances, immediately after detection of a problem, the system will send the appropriate warning to the command center computer. The system must be reset manually and only after the grounding continuity has been reestablished.

- **Knock-down pole**

  The Safe-Lite System detects when a pole is knocked down, either by accident or weather conditions. Upon detecting a pole knock-down

situation, the system will immediately either cutoff or block the power supply to the pole's circuit, depending whether the circuit is on or off, and send a warning to the command center computer. The system will continue to block the power supply to the system until necessary repairs are performed.

ROADWAY LIGHTS SYSTEM MONITORING

- **Number of lights out on each circuits**

  The Safe-Lite System monitors lights' operation and detects lights out on a circuit. It sends a notification to the command center computer allowing dispatch of repair crews to the affected circuit. It allows a swifter and more accurate response than any other system currently in use to detect and repair defective fixtures.

- **Circuit Overload**

  The Safe-Lite System measures the load on a circuit and compares to a specific load parameter. The System is capable of sending notification to the command center computer and cut-off the power supply when the overload exceeds the specified parameter.

- **Door Open Warning**

  Through a sensor installed on each service panel, the Safe-Lite System can detect when a service's cabinet door is open. The devise sends a notification to the command center computer where the operator can verify if it is an accidental condition. If required, a crew is dispatched to re-latch the door reducing the probability of accidents or tampering.

- **In Line Fuse Monitoring**

  The Safe-Lite System automatically detects when an in-line fuse has failed and sends a notification to the command center computer. A crew can be dispatched to perform the necessary repairs allowing for a timely response. This results in a higher percent of lights on, thus creating a safer environment for life and property.

- **Circuit's Power Supply**

  When the Safe-Lite System detects an interruption to the circuit's power supply, the device sends a notification to the command center computer. This notification is forwarded to the power supplier so corrective action can be implemented minimizing the time that the lights are out of service.

ROADWAY LIGHTS SYSTEM REMOTE OPERATION

- **Bypass of Circuit's Photocell control**

  The Safe-Lite System allows remote bypassing of the photocell control installed on the service panel. A circuit can be powered on and off, as required, from the command center computer. When required, the command center initiates a work order to perform repairs as needed.

- **Weather Emergencies**

  The capability of the Safe-Lite System to remotely power on and off one or all roadway lights circuits significantly reduces the risks to life and property due to weather related emergency events. The risks associated to flooding and wind damage to the roadway lights system are minimized when the power to the circuits is cut-off immediately after or during the event's occurrence. The power cut-off can be triggered by one of the monitoring capabilities of the system or by request of the public or governing authority. The period of time where hazardous conditions prevails is minimized and greatly reduced compared to the time required to dispatch a crew to effect the power down of the circuit.

MIAMI-DADE COUNTY, FLORIDA

MIAMI-DADE

STEPHEN P. CLARK CENTER

PUBLIC WORKS DEPARTMENT
SUITE 1610
111 N.W. 1st STREET
MIAMI, FLORIDA 33128-1970
(305) 375-2960

November 16, 2001

Mr. Hector Ortiz, President
Horsepower Electric Inc.
8105 W 20th Avenue
Hialeah, Florida 33014-3231

RE: Safe Light Monitoring System

Dear Mr. Ortiz:

Pursuant to your recent report concerning the referenced subject, please be advised that this Department will entertain further discussions with your company regarding the use of said system throughout the County's roadway lighting circuits. We are requesting a proposal from your company regarding implementation of a Pilot Program for the installation of the Safe Light Monitoring System on 10 of the County's roadway lighting circuits. This installation will monitor approximately 400 lights.

Please note that 18 months is a desirable time frame, as this will allow for a six month period for the installation of your equipment and a 12 month period for evaluating system's operation.

Upon conclusion of this program, the Department and its consultant, will review the operation and effectiveness of this system and make the decision as to recommend the use of this system on a countywide basis.

Should you require additional information, please do not hesitate to contact Ms. Esther Calas, P.E., Assistant Director, Highway and Traffic Engineering at (305) 375-2091.

Sincerely,

Aristides Rivera, P.E., P.L.S.
Director

cc: Pedro G. Hernandez, P.E., Assistant County Manager
Esther L. Calas, P.E., Assistant Director
Joaquin Urrechaga, P.E., Chief, Traffic Signals and Signs Division
Garfield Perry, Street Lighting Coordinator

G:\Safe Light Monitoring System.doc

MARTIN - VILATO
ASSOCIATES, INC.
CONSULTING ENGINEERS

OCTOBER 22, 2001

MIAMI-DADE PUBLIC WORKS DEPARTMENT
111 N.W. 1st. STREET, 15TH FLOOR
MIAMI, FLORIDA 33128

ATT.: ESTHER L. CALAS, P.E.
Assistant Director

REF.: STREET LIGHTING MONITORING SYSTEM

On August 9th. 2001 the Undersigned witnessed a second demonstration of the Monitoring System being proposed by Horsepower Electric, Inc. (The Vendor).

The system was set-up at the existing street lighting service point near Coral Way & S.W. 92nd Avenue.

The System consisted of a single pole-mounted cabinet combining the monitoring equipment and the electrical service fused disconnect.

The System uses PLC technology to monitor voltage, current and line disturbances, and is capable of sending via telephone lines the actual status of the various parameters it is monitoring such as:

- panel door open
- incoming service voltage
- actual load amperage & kw demand (overall and per circuit)
- blown service fuses
- photocell function
- out-of-service poles
- line cuts
- line faults (short circuits and ground faults)
- pole knocked-downs (needs additional wire)

A. For this demonstration the vendor made use of the actual modem feature of the system. The signals were received, via phone line, by a laptop computer set-up at a remote office location. The following features were tested:

- panel door open
- lights "out" detection.
- ground fault detection with power.
- ground fault detection while turning on.
- simulated knock-down without power.
- simulated knock-down with power.
- open ground wire without power.
- open ground wire with power.

The test performed confirmed the Vendor's description of the system's capabilities. Refer to Vendor's letter of August 16, 2001 describing the "Safe-Lite Monitoring System" for operational features.

X5 19

2730 S. W. 3rd Avenue Suite 402 Miami Florida 33129 Tel. 305-854-6977 / Fax 305-854-2591

Miami-Dade Public Works Department
Att.: Esther L. Calas, P. E.
Ref.: Street Lighting Monitoring System

October 22, 2001

OBSERVATIONS:

The following is a list of Pros and Cons based on our own observations.

PROS:

- Increased public safety due to its automatic feature that turns power off upon sensing of various faults
- Provides instant 24 hrs. / 7 days monitoring from a central location, substantially eliminating the need to patrol the streets, or having to depend on phone calls to report malfunctions.

CONS:

- It is a proprietary design from a single source.
- It has not been used or even tested under actual conditions.
- ✳ Requires the addition of an extra wire in each circuit, thus it should only be installed on new or newly rewired jobs. ✳

RECOMMENDATIONS:

- Create a Pilot Program to allow the Vendor to install the system in some 10-15 service points to monitor roughly 500 poles or 3% of all county-owned street lights.
- Allow the Program to run for a year after installation.
- The County shall be able to conduct, during this time, independent tests of the system and evaluate its suitability.
- Vendor will also use this time to "debug" the system and to make any needed improvements.

Please contact us if further discussions or clarifications are needed.

Sincerely,

MARTIN-VILATO ASSOCIATES, INC.

Enrique G. Vilato, P.E.

EGV/bpv

C.C.: Pedro Hernandez, P.E., Asst. County Manager
Joaquin Urrechaga, P.E.

76 20

August 16, 2001

Enrique Vilato
Martin-Vilato Associates
2730 SW 3 Ave
Suite 402
Miami, FL 33129

Dear Mr. Vilato:

As per our conversation, enclosed find description of the Safe-Lite Monitoring System.

If you have any questions please do not hesitate to contact me.

Thank you,

Jose Oliver

Cc; Garfield Perry

ROADWAY LIGHTS SYSTEM MONITORING

- **Number of lights out on each circuit**

  The Safe-Lite System monitors lights' operation and detects lights out on a circuit. It sends a notification to the command center computer allowing dispatch of repair crews to the affected circuit. It allows a swifter and more accurate response than any other system currently in use to detect and repair defective fixtures.

- **Circuit Overload**

  The Safe-Lite System measures the load on a circuit and compares to a specified load parameter. The System is capable of sending notification to the command center computer and cut-off the power supply when the overload exceeds the specified parameter.

- **Door Open Warning**

  Through a sensor installed on each service panel, the Safe-Lite System can detect when a service's cabinet door is open. The device sends a notification to the command center computer where the operator can verify if it is an accidental condition. If required, a crew is dispatched to re-latch the door reducing the probability of accidents.

- **In Line Fuse Monitoring**

  The Safe-Lite System automatically detects when an in-line fuse has failed and sends a notification to the command center computer. A crew can be dispatched to perform the necessary repairs allowing for a timely response. This results on a higher percent of lights on creating a safer environment for life and property.

- **Circuit's Power Supply**

  When the Safe-Lite System detects an interruption to the circuit's power supply, the device sends a notification to the command center computer. This notification is forwarded to the power supplier so corrective action can be implemented minimizing the time that the lights are out of service.

ROADWAY LIGHTS SYSTEM REMOTE OPERATION

- **Bypass of Circuit's Photocell control**

  The Safe-Lite System allows remote bypassing of the photocell control installed on the service panel. A circuit can be powered on and off, as required, from the command center computer. When required, the command center initiates a work order to perform repairs as needed.

- **Weather Emergencies**

  The capability of the Safe-Lite System to remotely power on and off one or all roadway lights circuits significantly reduces the risks to life and property due to weather related emergency events. The risks associated to flooding and wind damage to the roadway lights system are minimized when the power to the circuits is cut-off immediately after or during the event's occurrence. The power cut-off can be triggered by one of the monitoring capabilities of the system or by request of the public or governing authority. The period of time where hazardous conditions prevails is minimized and greatly reduced compared to the time required to dispatch a crew to effect the power down of the circuit.

MEMORANDUM
OFFICE OF THE MAYOR

TO: Mr. Pete Hernandez,
Senior Assistant

DATE: January 25, 2001

FROM: Alex Penelas
Mayor

SUBJECT: Light Pole Inspections and Related Procedures

Immediately following the tragic electrocutions in December, I called for a thorough and swift investigation into the accident. In addition, I ordered an inspection of all light poles that the County currently maintains in flood-prone areas. In an abundance of caution, I urged that the other light poles along the Flagler circuit, where the accident took place, be completely rewired based on the feedback from the Public Works Department and Horsepower Electric that some of the wires, though still within safety guidelines, appeared worn and frayed. Furthermore, I called for our maintenance and inspection procedures to be reviewed.

Below are the three areas I would like addressed as soon as possible in reference to the prevention of electrocutions.

1) More interagency cooperation and referrals – Light poles in Miami-Dade, depending on where they are located, are maintained by either the County, FPL, or municipal governments. The problem is that residents do not know where to call when there are problems with light poles and sometimes they call the wrong agency and nothing gets done. We need to have a unified response to handle reports from residents. We need to do more outreach regarding the **(305) LITE-OUT** number. This number gets residents in touch with a voice recording at Horsepower Electric where they may report their problem. We need to make sure that the voice recording is updated so that callers always leave their telephone numbers. The calls should always be promptly returned and the problems quickly corrected. If the light poles in question are not among those maintained by the County, the calls should be referred to the appropriate agency and the resident notified of this referral so that the problem is fixed.

   Finally, stickers should be affixed to the 19-thousand or so light poles that the County maintains informing residents of the **(305) LITE-OUT** number in three languages (English, Spanish, and Creole) and that any problems ranging from light bulb outages to exposed wiring to vandalism should be reported. The stickers should be red or yellow. There should not be a high cost to this. Therefore, it should be done as soon as possible.

2) We must continue moving forward and complete the inspection of light poles identified in flood-prone areas, roughly 5,000.

3) Finally, the County must revisit the maintenance contract with Horsepower Electric. The County must adopt a more proactive or preventive maintenance program that includes a predetermined regular maintenance schedule. I am aware of the size of this task and of the potential costs, but we must move in this direction. I will support whatever enhanced funding and staffing is necessary that will allow for this type of inspection. Light poles should not only be examined when the light is out. The reality is that a light pole could be damaged or deteriorated, yet the light bulb still operates.

I expect that this three-point program will move forward expeditiously and that you will report back on your progress.

Cc: Merrett R. Stierheim, County Manager
Ari Rivera, Director, Public Works Department